

Amendments to the Specification:

Please amend the Specification as follows:

Please delete Table 1 as found on Page 55 and replace it with the attached replacement sheet of Page 55.

Please delete the paragraph on page 14, lines 10-11, and replace it with the following paragraph:

FIGURES 12aA-fF are laminin-derived peptide sequences for 12-13 mer peptides DP1-18 and LP19-25, and 7 mer peptides DP 26-49.

Please delete the paragraph on page 14, lines 24-25, and replace it with the following paragraph:

FIGURE 17aA-dD are graphs of peptides DP1-2 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by circular dichroism spectroscopy (CD).

Please delete the paragraph on page 14, lines 26-27, and replace it with the following paragraph:

FIGURE 18aA-dD are graphs of peptides DP3-4 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 14, lines 28-29, and replace it with the following paragraph:

FIGURE 19aA-dD are graphs of peptides DP5-6 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 14, lines 30-31, and replace it with the following paragraph:

FIGURE 20 ~~aA-dD~~ are graphs of peptides DP7-8 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 15, lines 1-2, and replace it with the following paragraph:

FIGURE 21 ~~aA-dD~~ are graphs of peptides DP9-10 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 15, lines 3-4, and replace it with the following paragraph:

FIGURE 22 ~~aA-dD~~ are graphs of peptides DP11-12 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD

Please delete the paragraph on page 15, lines 5-6, and replace it with the following paragraph:

FIGURE 23 ~~aA-dD~~ are graphs of peptides DP13-14 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 15, lines 7-8, and replace it with the following paragraph:

FIGURE 24 ~~aA-dD~~ are graphs of peptides DP15-16 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 15, lines 9-10, and replace it with the following paragraph:

FIGURE 25 ~~aA-dD~~ are graphs of peptides DP17-18 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 15, lines 11-12, and replace it with the following paragraph:

FIGURE 26 ~~aA-bB~~ are graphs of peptide LP19 demonstrating its effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 18, lines 18-22, and replace it with the following paragraph:

As used here in "A β amyloidoses" refers to amyloid diseases which involve the formation, deposition, accumulation and/or persistence of A β (i.e. beta-amyloid protein), including but not limited to A β containing 39-43 amino acids in length, but more preferably, A β 1-40 (~~SEQ ID NO:36~~), or A β 1-42 (~~SEQ ID NO:37~~), and mixtures or fragments thereof.

Please delete the paragraph on page 20, lines 3-4, and replace it with the following paragraph:

Figures 12 ~~aA-fF~~ are laminin peptide sequences for 12-13 mer peptides DP1-18 and LP19-25, and 7 mer peptides DP 26-49.

Please delete the paragraph on page 20, lines 17-18, and replace it with the following paragraph:

Figure 17 ~~aA-dD~~ are graphs of peptides DP1-2 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by circular dichroism spectroscopy (CD).

Please delete the paragraph on page 20, lines 19-20, and replace it with the following paragraph:

Figure 18~~a~~A-dD are graphs of peptides DP3-4 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 20, lines 21-22, and replace it with the following paragraph:

Figure 19~~a~~A-dD are graphs of peptides DP5-6 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 20, lines 23-24, and replace it with the following paragraph:

Figure 20~~a~~A-dD are graphs of peptides DP7-8 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 20, lines 25-26, and replace it with the following paragraph:

Figure 21~~a~~A-dD are graphs of peptides DP9-10 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 20, lines 27-28, and replace it with the following paragraph:

Figure 22aA-dD are graphs of peptides DP11-12 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD

Please delete the paragraph on page 20, lines 29-30, and replace it with the following paragraph:

Figure 23aA-dD are graphs of peptides DP13-14 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 20, lines 31-32, and replace it with the following paragraph:

Figure 24aA-dD are graphs of peptides DP15-16 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 21, lines 1-2, and replace it with the following paragraph:

Figure 25aA-dD are graphs of peptides DP17-18 demonstrating their effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 21, lines 3-4, and replace it with the following paragraph:

Figure 26aA-bB are graphs of peptide LP19 demonstrating its effects on inhibition of A β 1-42 amyloid fibrils as assessed by CD.

Please delete the paragraph on page 25, lines 19-31 to page 26, lines 1-4, and replace it with the following paragraph:

Laminin globular domain derived 12-13 amino acid peptides showing the more favorable A β amyloid inhibitory activity as described in Examples above include, but are not limited to:

- 1) AG73 RKRLQVQLSIRT (Arg-Lys-Arg-Leu-Gln-Val-Gln-Leu-Ser-Ile-Arg-Thr) SEQ ID NO: 1
- 2) A13 RQVFQVAYIIKA (Arg-Gln-Val-Phe-Gln-Val-Ala-Tyr-Ile-Ile-Ile-Lys-Ala) SEQ ID NO: 3
- 3) HA3G76 YLSKGRLVFALG (Tyr-Leu-Ser-Lys-Gly-Arg-Leu-Val-Phe-Ala-Leu-Gly) SEQ ID NO: 8
- 4) A4G82 TLFLAHGRLVFM(Thr-Leu-Phe-Leu-Ala-His-Gly-Arg-Leu-Val-Phe-Met) SEQ ID NO: 11
- 5) A5G81 AGQWHRVSVRWG (Ala-Gly-Gln-Trp-His-Arg-Val-Ser-Val-Arg-Trp-Gly) SEQ ID NO: 15, and
- 6) A5G101 DGRWHRVAVIMG (Asp-Gly-Arg-Trp-His-Arg-Val-Ala-Val-Ile-Met-Gly) SEQ ID NO: 18.

These laminin globular domain-derived peptides, such as the six just above from Sequence Group B, can be synthesized using L- or D-amino acids.

Please delete the paragraph on page 34, lines 17-23, and replace it with the following paragraph:

A first set then of 12 synthesized six D-form peptides based upon the top performing six L-form peptides such as A13 discussed above, and respective reverse sequences of the six D-form peptides, was subjected to a battery of tests for potential ability of each tested peptide to disrupt/disassemble A β 1-42 fibrils as described above. Twelve laminin-peptides D-AG73 DP1, D-A13 DP2, D-HA3G82 DP3, D-A4G82 DP4, D-A5G81 DP5, D-A5G101 DP6, D-R-AG73 DP13, D-R-A13 DP14, D-R-HA3G8276 DP15, D-R-A4G82 DP16, D-R-A5G81 DP17, and D-R-A5G101 DP18 were tested.

Please delete the paragraph on page 35, lines 17-31, and replace it with the following paragraph:

Using a Congo red (CR) binding assay, see Figure 14, the ability of the 12 synthesized peptides, D-AG73 DP1, D-A13 DP2, D-HA3G82 DP3, D-A4G82 DP4, D-A5G81 DP5, D-A5G101 DP6, D-R-AG73 DP13, D-R-A13 DP14, D-R-HA3G8276 DP15, D-R-A4G82 DP16, D-R-A5G81 DP17, and D-R-A5G101 DP18, to inhibit the binding of Congo red to A β 1-42 fibrils was also assessed. This assay is another measure of a test peptide's ability to disrupt A β fibrils. Superior laminin derived peptide inhibition of CR binding to A β 42 fibrils was again found to be D-R-A13, DP14, which caused a 100% inhibition when used at an A β :peptide wt/wt ratio of 1:1, and a 75.1 % inhibition when used at a 1:0.1 wt/wt ratio. In comparison, LP25 iA β 5 only inhibited Congo red binding by 39.6% at a 1:1 wt/wt ratio, and by 31.8% when used at a 1:0.01 wt/wt ratio. The order of 5 of the most effective laminin derived peptides to inhibit Congo red binding to A β 42 fibrils at a 1:1 wt/wt ratio as determined by this assay is D-R-A13 DP14 (100%)> D-A13 DP2 (99%)> D-R-A4G82 DP16 (94.8%)> D-A4G82 DP4 (55.0%)> D-A5G81 DP5 (54.5%). These results obtain notwithstanding that DP2 D-A13 and its reverse peptide DP14 D-R-A13 appear to contain substantial intrinsic β -sheet structure of their own, which is picked up in the ThioT assay.